

REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and following arguments is respectfully requested.

Claims 59-60 and 65 have been amended. No new matter has been added as a result of these amendments. Claims 66-72 and 75-76 have been deleted.

GENERAL REMARKS

On page 2 of the Office Action, the Examiner kindly advised Applicants that should claim 41 were found to be allowable, that claim 59 would be objected to under 37 CFR 1.75 as being a substantial duplicate thereof.

The Examiner also made some remarks concerning the deposit of the *Eustoma* cultivars in the specification. To avoid any confusion, Applicants would like to clarify what exactly will be deposited upon an indication of allowable subject matter. Applicants believe that this clarification will also render moot the objection of claim 59 referred to above.

With respect to claim 41, Applicants intend to deposit 2,500 seeds of inbred line 752, which is described on page 5, line 16 of the specification. Inbred line 752 will be discussed in more detail below. With respect to claim 59, this claim has been amended to refer to hybrid 3087, seed of which has already been deposited with the American Type Culture Collection. Hybrid 3087 will be discussed in more detail below.

REJECTION OF CLAIMS UNDER 35 U.S.C. SECTION 112, SECOND PARAGRAPH

New claims 41-42, 48, 55, 57-60, 73, 75-76 and dependent claims 43-54, 56, 61-72 and 74 are rejected under 35 U.S.C. Section 112, second paragraph as being indefinite. In the Office Action, the Examiner makes two (2) arguments as to why the claims are indefinite. First, in connection with claims 41-42, 55, 57-

60, 73, 75-76 and dependent claims 43-54, 56, 61-72 and 74 the Examiner stated that it was not clear what the phrase “reduced apical dominance” meant nor had that phrase been sufficiently defined in the specification. In addition, the Examiner stated that the recessive allele had not been sufficiently characterized. Second, in connection with claim 48, the Examiner states that it is unclear what is meant by the term “inbred” because of the recitation at page 5, lines 14-16 that an “inbred” was discovered within a segregating F_2 population. Applicants respectfully traverse these rejections.

First, with respect to the indefiniteness rejection in connection with new claims 41-42, 55, 57-60, 73, 75-76 and dependent claims 43-54, 56, 61-72 and 74, Applicant disagrees with the Examiner that the phrase “reduced apical dominance” is unclear. Applicant submits that the specification adequately defines what the term “reduced apical dominance” in the specification and that this definition would be clear and understandable to a one of ordinary skill in the art, specifically a plant breeder. More particularly, Applicant directs the Examiner’s attention to page 4, lines 20-28 of the specification where it states that “[A]s used herein, the term “reduced apical dominance” (hereinafter referred to as “RAD”), means that apical dominance is reduced such that plants expressing this trait have increased basal branching when compared with commercial hybrids. As used herein, the term “basal branching” refers to the branches arising from the cotyledonary node below the first true leaves. The RAD hybrids also demonstrate high levels of total branching. As also used herein, the term “total branching” refers to shoots arising from the basal branches and from the main stem above the first true leaves. Additionally, multiple branches per leaf axil are present under high light conditions. As used herein, the term “high light conditions” means that the amount of light present per 24 hour day is from about 20 to about 30 $\text{mol} \cdot \text{m}^{-2} \cdot \text{day}^{-1}$.” The Examiner fails to provide any evidence that such a definition is unclear to one of ordinary skill in the art.

With respect to the indefiniteness rejection in connection with the term "inbred", Applicants note that this term is used in connection with the line 752. Applicants submit that the term "inbred" as used in the specification is not indefinite and its meaning is well known to those of ordinary skill in the art (i.e. plant breeders). In addition, Applicants herewith submit a 37 C.F.R. Section 1.132 declaration of Lynne Knosher (hereinafter "132 Declaration"), who is one of the inventors of this application, stating that this line is an inbred line that is homozygous at all loci. The reason that this 132 Declaration was not submitted earlier was that this Office Action was the first time that this rejection was made by the Examiner.

With respect to disclosure in the specification regarding inbred line 752, Applicants submit that this line was discovered in a segregating population of F₂ plants as described in the specification. However, using routine breeding techniques known to all plant breeders skilled in the art as stated in the attached 132 Declaration, this line was selected and then repeatedly self-pollinated to obtain inbred line 752, which as stated previously, is homozygous at all loci.

Thereupon, in view the aforementioned arguments, Applicant submits that the rejection of claims 41-42, 48, 55, 57-60, 73, 75-76 and dependent claims 43-54, 56, 61-72 and 74 under 35 U.S.C. Section 112, second paragraph, should be withdrawn.

REJECTION OF CLAIMS 41-76 UNDER 35 U.S.C. SECTION 112, FIRST PARAGRAPH

Claims 41-76 are rejected under 35 U.S.C. Section 112, first paragraph for the same reasons that claims 19-35 were rejected in the previous Office Action as lacking an adequate written description. More specifically, the Examiner states that the *Eustoma* seed deposited by Applicant is seed that will form a heterozygous population when grown. According to the Examiner, this seed is not from an inbred plant that breeds true to type and that this seed will produce

plants that have not been fully characterized nor are they capable of being fully characterized until they are grown. The Examiner respectfully suggests that Applicant deposit a tissue culture of regenerable cells that are capable of expressing the parent plant. Applicant respectfully traverses this rejection.

With respect to claim 41 and the claims relating thereto, as discussed above and in the attached 132 Declaration, upon indication of allowable subject matter, Applicants intend to deposit seed of inbred line 752. As discussed in the 132 Declaration, inbred line 752 is homozygous at all loci. Therefore, in view of this clarification, Applicants submit that the rejection of claims 41-58 under 35 U.S.C. Section 112, first paragraph, should be withdrawn.

With respect to claims 49-65 and 73-74, Applicants have deposited 2500 seed of hybrid 3087. While hybrid 3087 is a commercially uniform hybrid, the Examiner is correct that the hybrid is not homozygous at all loci. However, hybrid 3087 is homozygous for the RAD allele. The Examiner's attention is directed to Example 1 in the specification. In this example, hybrid 3087, which exhibits the RAD phenotype, was created from two inbred lines both having inbred line 752 in their pedigree. As described in Example 1, *Eustoma* hybrid 3087 can be used in sexual crossings to introgress RAD into the genetic backgrounds of other *Eustoma* plants having commercially desirable characteristics in order to create new plants exhibiting the RAD trait. Therefore, in view of the above arguments, Applicants submit that this rejection is now moot and should be withdrawn.

REJECTION OF CLAIMS 41-76 UNDER 35 U.S.C. SECTION 102(b)

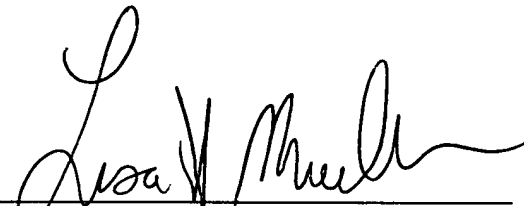
Claims 41-76 are rejected under 35 U.S.C. Section 102(b) as being unpatentable over Harbaugh et al. for the same reasons as expressed in the previous Office Action for claims 19-25, 32 and 35-36. Applicants respectfully traverses this rejection.

Harbaugh et al. do not disclose or suggest seed of inbred line 752 or hybrid plant 3087, plants or plant parts regenerated from this seed, or the use of these plants in breeding. Therefore, because each and every element of the claimed invention is not disclosed in Harbaugh et al., the rejection of claims 41-76 under 35 U.S.C. Section 102(b) should be withdrawn.

Applicants submit that the claims are now in condition for allowance.

If any additional fees, such as additional claim fees, are incurred as a result of the filing of this paper, authorization is given to charge deposit account number 23-0785.

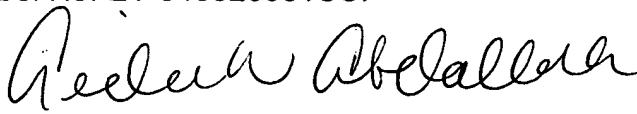
Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this amendment and any other documents referred to as enclosed herein are being deposited in an envelope with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated below and addressed to Mail Stop RCE, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450 on June 17, 2004, Express Mail Label No. EV 348826031US.





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Hope et al.)
Serial No.: 09/429,723) Group Art Unit: 1661
Filed: 10/29/99) Examiner: Grunberg, Anne M.
For: Mutant Apical Dominance Gene in)
Eustoma)

Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

DECLARATION OF LYNNE KNOSHER
PURSUANT TO 37 C.F.R. SECTION 1.132

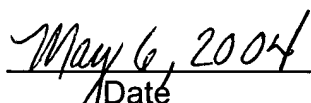
I, Lynne Knosher, declare as follows:

1. I am one of the inventors of the above-identified application.
2. I am currently employed by Ball Horticultural Company (hereinafter "Ball"), the assignee of the present invention, as a plant breeder. I have been employed by Ball for a period of about fifteen (150) years. Prior to my employment with Ball, I was employed by Amlings Flowerland as an Assistant Manger.
3. I received my Bachelor's Degree in Ornamental Horticulture from the University of Illinois in 1976.
4. I am the same Lynne Knosher that executed the 37 C.F.R. Section 1.132 declaration on January 21, 2002 in connection with the above-identified application.
5. I have reviewed the Office Action mailed on January 26, 2004 in connection with the above-identified application. I understand from reading the Office Action that the Examiner has rejected claims 41-76 under 35 U.S.C. Section 112, first and second paragraphs, as lacking an adequate written description and as being indefinite as well as under 35 U.S.C. Section 102(b) as being unpatentable over Harbaugh et al.
6. With respect to claim 41, Applicants intend to deposit 2,500 seed of inbred line 752 with the American Type Culture Collection upon indication of allowable subject matter by the Examiner. As a plant breeder of *Eustoma*, I have used inbred line 752 in numerous crossings with other inbred *Eustoma* lines to create new hybrid *Eustoma* plants using routine plant breeding techniques. As stated

in the specification on page 5, lines 14-16, inbred line 752 was discovered within a segregating F₂ population of plants. This plant (752) was selected from this population of plants and repeatedly self-pollinated for many generations to create an inbred line that is homozygous at all loci, including the loci encoding the reduced apical dominance allele that is discussed on page 4, lines 20-29 of the specification.

7. I declare further that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and such willful false statements may jeopardize the validity of the instant patent specification or any patent issuing thereon.


Lynne Knosher


Date